

Abstract

The invention relates to a detector, and to a method for the production thereof, for detecting a high-energy and high-intensity particle beam (2), which comprises a crystalline semi-conductor plate (3) having a metal coating (4) and which is arranged on a substrate (5), the semi-conductor plate (3) being a diamond plate (6), which is coated on both faces with metal structures (7, 8). The metal structures (7, 8) comprise aluminium and/or an aluminium alloy and form electrodes, which are arranged to be connected to various electrical potentials by way of conductor tracks (10) on the substrate (5), the substrate (5) being a ceramic plate (11) having a central orifice (24), which is covered by the diamond plate (6).